

~~SECRET~~

INTELLIGENCE MEMORANDUM

MAJOR TELECOMMUNICATIONS GOALS  
OF THE SOVIET SIXTH FIVE YEAR PLAN  
(1956-60)

(SUPPLEMENT)

CIA/RR IM-444-S-1

27 February 1957

WARNING

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FOREWORD

This memorandum supplements CIA/RR IM-444, Major Telecommunications Goals of the Sixth Five Year Plan (1956-60), 9 January 1957, SECRET, and presents additional plan data, subsequently received, which are highly significant and which fill several gaps in the original memorandum.

- iii -

S-E-C-R-E-T

S-E-C-R-E-T

CONTENTS

	<u>Page</u>
Summary and Conclusions . . . . .	1
1. Trunklines . . . . .	2
2. Aural Broadcasting Reception Base . . . . .	3
3. Telephone Service . . . . .	3
4. Intrarayon Communications . . . . .	4

Appendix

Source References . . . . .	5
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- v -

S-E-C-R-E-T

CIA/RR IM-444-S-1  
(ORR Project 46.1705)

S-E-C-R-E-T

MAJOR TELECOMMUNICATIONS GOALS  
OF THE SOVIET SIXTH FIVE YEAR PLAN  
(1956-60)\*

(SUPPLEMENT)

Summary and Conclusions

During the course of the Sixth Five Year Plan (1956-60) the USSR probably intends to construct 19,000 kilometers (11,400 miles) of interurban cable trunklines, including 2,700 kilometers (1,620 miles) of coaxial\*\* cable. A portion of the coaxial cable may be installed on a route southwest from Moscow through Kiev to a terminal point near the Czechoslovak border. The 1956 figure on the number of wired radio speakers installed in kolkhozes supports and affirms the announced Plan goal of 10.3 million. The USSR appears to be ahead of Plan schedules in the number of cities to be equipped with automatic telephone exchanges. The apparently small increase in the total capacity of "numbers"\*\*\* in 1956 will probably be offset by an acceleration of the rate of production of equipment toward the end of the Plan period.

The 1956 Plan for telecommunications construction included (a) the installation of 3,800 kilometers (2,280 miles) of interurban cable trunklines, with one of the lines utilizing coaxial cable; (b) the installation in kolkhozes of 3,300 wired radio centers, 130,000 kilometers (78,000 miles) of radio transmission lines, and 2 million wired

\* The estimates and conclusions contained in this memorandum represent the best judgment of ORR as of 1 February 1957.

\*\* In general, coaxial cable consists of from 2 to 8 coaxial tubes and a varying number of service conductors. A single tube can carry one television circuit or as many as 600 one-way telephone circuits. One or more of these telephone circuits can be broken up into as many as 18 sixty-word-per-minute teletype circuits. The capacity and modes of transmission of this particular cable are not known.

\*\*\* The Soviet term number in this context usually refers to the number of separate subscriber lines that are accommodated in the operating switchboards of the central office.

S-E-C-R-E-T

S-E-C-R-E-T

radio speakers; (c) the installation of automatic telephone exchanges in 20 cities, with a total capacity for the USSR of 54,000 numbers; and (d) the connection of 4,400 kolkhoz administrations with rayon centers by telephone.

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1. Trunklines.

The installation of 3,800 kilometers (2,280 miles) of interurban cable trunklines was planned for 1956. 1/\* This amount projected over a 5-year period gives a total of 19,000 kilometers (11,400 miles) of interurban cable trunklines for the Sixth Five Year Plan. This figure is qualified, however, by the Soviet statement that the coaxial cable will be used on one of these interurban trunklines. 2/ In recent announcements the USSR had indicated that it plans the construction of twice the present amount of coaxial cable line during the Sixth Five Year Plan. 3/ The total length of coaxial cable line in the USSR at the end of the Fifth Five Year Plan (1951-55) is estimated to have been 1,350 kilometers (810 miles). 4/ Twice this amount gives a total of 2,700 kilometers (1,620 miles) for the Sixth Five Year Plan, or an annual rate of 540 kilometers (324 miles). Allowance for a single line of coaxial cable of 540 kilometers results in an adjusted figure of 3,260 kilometers (1,956 miles) of interurban cable trunklines for the year 1956 and a projected figure of 16,300 kilometers (9,780 miles) for the Sixth Five Year Plan.

In regard to the location of this single coaxial cable line, it is possible that this is the first segment of a coaxial cable line that will be extended southwest from Moscow through Kiev to a terminal point near the Czechoslovak border. 5/ This assumption is based on the following information:

a. Announced plans for the construction of television relay facilities from Moscow to other parts of the USSR indicate that, with the exception of the area to the southwest of Moscow, the relay of network

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\* For serially numbered source references, see the Appendix.

S-E-C-R-E-T

S-E-C-R-E-T

programs to reception areas of the European and the Central Asiatic USSR will be accomplished chiefly by means of microwave relay lines. 6/

b. The fact that no Moscow television programs have been relayed to existing television stations southwest of Moscow 7/ indicates that the existing cable line facilities are not of the coaxial type.

c. The USSR and Czechoslovakia have agreed to install a coaxial line between the two countries in order to provide network television. 8/

2. Aural Broadcasting Reception Base.

The installation in the kolkhozes of 3,300 wired radiobroadcasting relay centers and 130,000 kilometers (78,000 miles) of radio transmission lines was planned for 1956. 9/ It is not possible at this time to determine whether these figures conform to the goals of the Sixth Five Year Plan.

Two million wired radio speakers were to be installed in kolkhoz homes during the year 1956. 10/ If this figure is to be taken as an annual rate of installation, the total number of speakers planned for installation in kolkhoz homes during the Sixth Five Year Plan would be 10 million. This figure conforms to a previous announcement of the Ministry of Communications which stated that 10.3 million wired radio speakers must be installed from kolkhoz wired radio centers during the Sixth Five Year Plan. 11/

3. Telephone Service.

The 1956 Plan called for the installation of automatic telephone exchanges (avtomaticheskkiye telefonnyye stantsii -- ATS's) in 20 cities. These new exchanges would have a total capacity of 54,000 numbers. 12/ The Sixth Five Year Plan contemplates the installation of ATS's in 70 cities and an increase of 600,000 in the total capacity of numbers. 13/ Dividing the Sixth Five Year Plan figure by 5 gives an arbitrary average of 14 cities to be equipped with ATS's per year and an annual increase of 120,000 in the total capacity of numbers.

A comparison of the annual average under the Sixth Five Year Plan with the figures planned for 1956 produces the following conclusions: (a) that the USSR would be ahead of schedule in the number of cities

S-E-C-R-E-T

to be equipped with ATS's, if the 1956 Plan were fulfilled, and (b) that the USSR is behind schedule in the increase of the total capacity of numbers. These conclusions need qualification. The installation of ATS's planned for 1956 may have been in smaller cities or rural areas with low number requirements. Also, production of ATS equipment can be expected to accelerate in the course of the Sixth Five Year Plan, and, correspondingly, the total capacity of numbers can also be expected to accelerate. Finally, the rate of growth of the total capacity of numbers will vary from year to year depending upon the size of the cities in which these ATS's are to be installed.

4. Intrarayon Communications.

Under the 1956 Plan, 4,400 kolkhoz administrations were to be connected with rayon centers by telephone. 14/ There are no figures currently available on estimates for intrarayon communications under the Sixth Five Year Plan. Consequently, no comparison can be made with the planned figures for 1956.

- 4 -

S-E-C-R-E-T

S-E-C-R-E-T

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4. Army. SCIA S-44-55, Feb 55, Signal Technical Intelligence Study - USSR (Vol. 1), p. 63-64. S. Eval. RR 2.

5. [REDACTED]

6. CIA. FDD Summary no 895, 19 Apr 56, Transportation, Communications, Electric Power and Construction in the USSR (21), p. 56-57. OFF USE. Eval. RR 2.

7. CIA. CIA/RR IM-444, Major Telecommunications Goals of the Sixth Five Year Plan (1956-60), 9 Jan 57. S.

FOIAb3b1

8. [REDACTED]

Ibid., 29 Jul 56, p. HH-3. OFF USE. Eval. RR 2.

9. CIA. FDD Summary no 1136 (1, above).

10. Ibid.

11. CIA. FDD Summary no 970, 26 Jun 56, Transportation, Communications, Electric Power and Construction in the USSR (23), p. 89. OFF USE. Eval. RR 2.

12. CIA. FDD Summary no 1136 (1, above).

13. CIA. CIA/RR IM-444 (7, above).

14. CIA. FDD Summary no 1136 (1, above).

- 6 -

S-E-C-R-E-T

S-E-C-R-E-T

APPENDIX

SOURCE REFERENCES

Evaluations, following the classification entry and designated "Eval.," have the following significance:

<u>Source of Information</u>	<u>Information</u>
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

1. CIA. FDD Summary no 1136, 27 Nov 56, Transportation, Communications, Electric Power and Construction in the USSR (28), p. 114. OFF USE. Eval. RR 2.

2. Ibid.

3. [REDACTED]

FOIAb3b1

- 5 -

S-E-C-R-E-T

**S-E-C-R-E-T**

**S-E-C-R-E-T**